

Latest bibliographic data on file with the International Bureau

Publication Number: WO/2000/079331 International Application No.: PCT/JP2000/004066
Publication Date: 28.12.2000 International Filing Date: 21.06.2000
Chapter 2 Demand Filed: 19.01.2001

Int. Class.: G02B 27/28 (2006.01), G02B 27/58 (2006.01), G11B 7/125 (2006.01), G11B 7/135 (2006.01)

Applicants: CITIZEN WATCH CO., LTD. [JP/JP]; 1-1, Nishi-Shinjuku 2-chome Shinjuku-ku, Tokyo 163-0428 (JP) (*Except US*).
HASHIMOTO, Nobuyuki [JP/JP]; Citizen Watch Co., Ltd. Technical Laboratory 840, Aza Takeno, Oaza Shimotomi Tokorozawa-shi, Saitama 359-8511 (JP) (*US Only*).

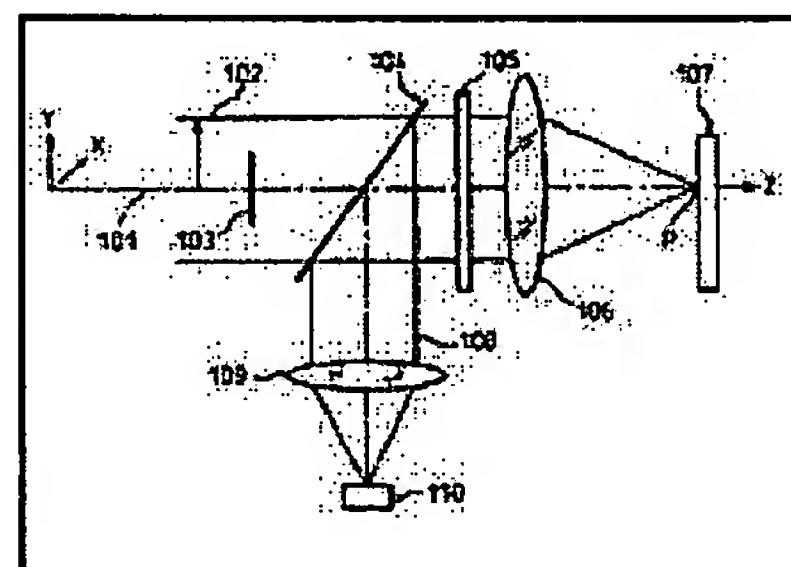
Inventor: HASHIMOTO, Nobuyuki [JP/JP]; Citizen Watch Co., Ltd. Technical Laboratory 840, Aza Takeno, Oaza Shimotomi Tokorozawa-shi, Saitama 359-8511 (JP).

Agent: ISHIDA, Takashi; A. Aoki, Ishida & Associates Toranomom 37 Mori Building 5-1, Toranomom 3-chome Minato-ku, Tokyo 105-8423 (JP).

Priority Data: 11/173944 21.06.1999 JP

Title: OPTICAL DEVICE

Abstract: An optical device capable of easily removing a side lobe or a side lobe component only from a light spot by super-resolution, the device comprising a shield device for shielding part of a first linearly polarized light, a polarized light beam splitter for transmitting the first linearly polarized light and reflecting a second linearly polarized light perpendicularly crossing the first linearly polarized light, a quarter-wavelength plate for converting the first linearly polarized light into a first circularly polarized light, converting the first circularly polarized light into the first linearly polarized light, and converting a second circularly polarized light in a turning direction opposite to that of the first circularly polarized light into the second linearly polarized light, a first condenser lens for generating a light spot on an optical disk and retroreflecting a light-spot-caused reflection light from the optical disk, and a second condenser lens for condensing a luminous flux reflected off the polarized light beam splitter onto a photodetector.



Designated States: JP, US.

Publication Language: Japanese (JA)

Filing Language: Japanese (JA)

(19) 世界知的所有権機関
国際事務局



(43) 国際公開日
2000 年 12 月 28 日 (28.12.2000)

PCT

(10) 国際公開番号
WO 00/79331 A1

(51) 国際特許分類⁷: G02B 27/58, G11B 7/135

(21) 国際出願番号: PCT/JP00/04066

(22) 国際出願日: 2000 年 6 月 21 日 (21.06.2000)

(25) 国際出願の言語: 日本語

(26) 国際公開の言語: 日本語

(30) 優先権データ:
特願平11/173944 1999 年 6 月 21 日 (21.06.1999) JP

(71) 出願人 (米国を除く全ての指定国について): シチズン
時計株式会社 (CITIZEN WATCH CO., LTD.) [JP/JP];
〒163-0428 東京都新宿区西新宿2丁目1番1号 Tokyo
(JP).

(72) 発明者; および

(75) 発明者/出願人 (米国についてのみ): 橋本 信幸

(HASHIMOTO, Nobuyuki) [JP/JP]; 〒359-8511 埼玉県
所沢市大字下富字武野840番地 シチズン時計株式会
社 技術研究所内 Saitama (JP).

(74) 代理人: 石田 敬, 外 (ISHIDA, Takashi et al.); 〒
105-8423 東京都港区虎ノ門三丁目5番1号 虎ノ門37
森ビル 青和特許法律事務所 Tokyo (JP).

(81) 指定国 (国内): JP, US.

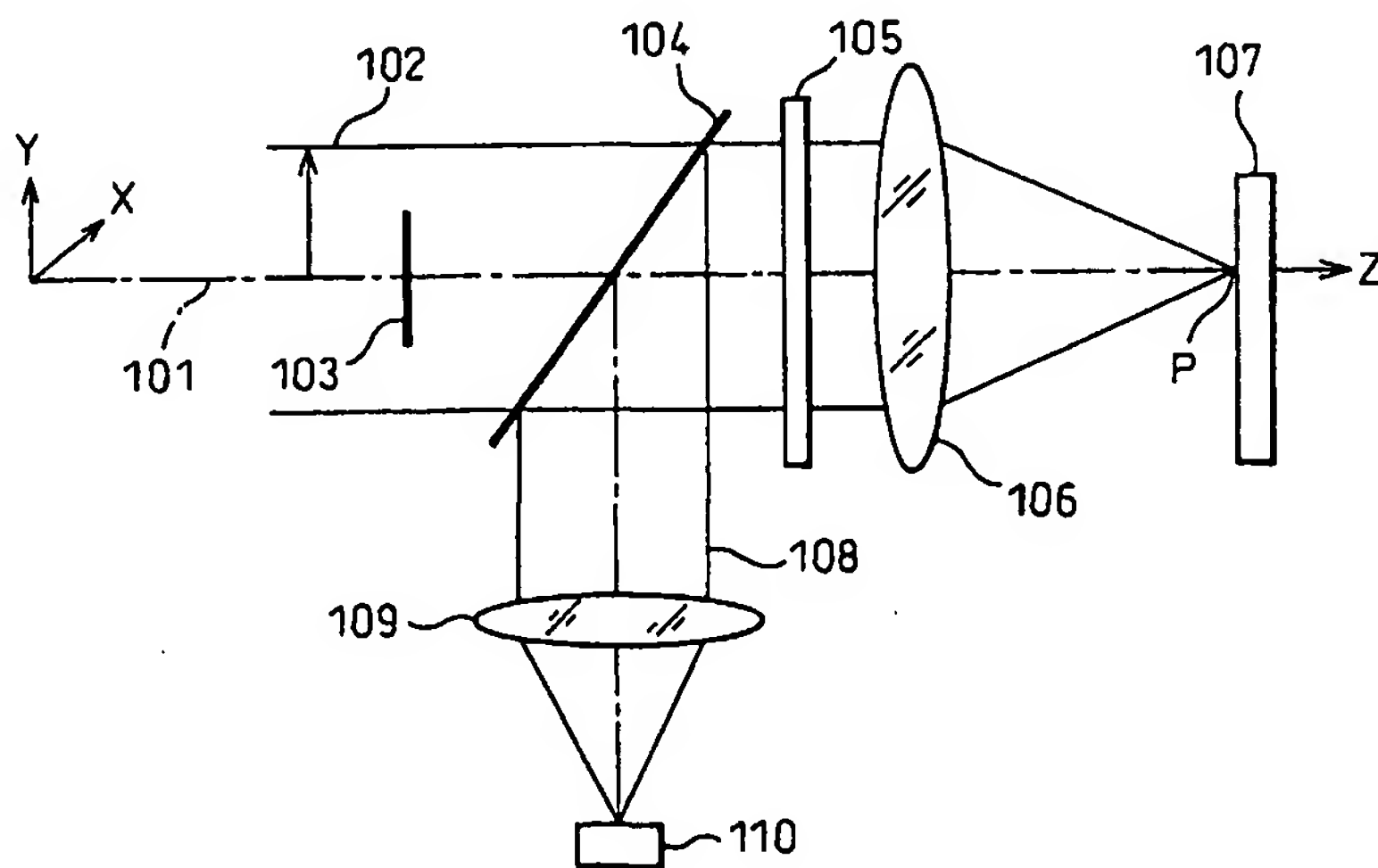
添付公開書類:

- 国際調査報告書
- 請求の範囲の補正の期限前の公開であり、補正書受領の際には再公開される。

2文字コード及び他の略語については、定期発行される
各PCTガゼットの巻頭に掲載されている「コードと略語
のガイダンスノート」を参照。

(54) Title: OPTICAL DEVICE

(54) 発明の名称: 光学装置



(57) Abstract: An optical device capable of easily removing a side lobe or a side lobe component only from a light spot by super-resolution, the device comprising a shield device for shielding part of a first linearly polarized light, a polarized light beam splitter for transmitting the first linearly polarized light and reflecting a second linearly polarized light perpendicularly crossing the first linearly polarized light, a quarter-wavelength plate for converting the first linearly polarized light into a first circularly polarized light, converting the first circularly polarized light into the first linearly polarized light, and converting a second circularly polarized light in a turning direction opposite to that of the first circularly polarized light into the second linearly polarized light, a first condenser lens for generating a light spot on an optical disk and retroreflecting a light-spot-caused reflection light from the optical disk, and a second condenser lens for condensing a luminous flux reflected off the polarized light beam splitter onto a photodetector.

[続葉有]